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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,267	08/08/2001	Noriyuki Ishihara	1422-0476P	3082

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EXAMINER

PRATS, FRANCISCO CHANDLER

ART UNIT	PAPER NUMBER
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1651

DATE MAILED: 10/10/2002

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/831,267

Applicant(s)

ISHIHARA ET AL.

Examiner

Francisco C Prats

Art Unit

1651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____.

DETAILED ACTION

The preliminary amendment filed August 8, 2001, has been received and entered.

Claims 1-40 are presented for examination.

Specification

The disclosure is objected to because of the following informalities:

The disclosure contains numerous terms which appear to be literally translated from the Japanese PCT parent application, but have no clear meaning in English. For example, the terms "producibility" and "liveability" are not English words.

Appropriate correction is required.

Claim Objections

Claims 13-23 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Note specifically that claim 1 is directed to a product. Thus, the recitation "used for" in claims 13-23, requiring action on the part of the practitioner, is inappropriate in product claims. In short, claims 13-23 use process-of-use language in product claims, thereby improperly mixing statutory categories of invention.

Art Unit: 1651

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As discussed above, the terms "producibility", "producibility improver" and "liveability" are not English words, and their meaning is therefore unclear. While it is noted that applicant can be their own lexicographer, the use of claim terms whose meaning is unclear even in the context of the application must be considered indefinite under § 112, second paragraph. The use of these terms throughout the claims renders them very confusing, and therefore indefinite. For example, it is not clear what a "decrease of liveability" is. See claim 25.

The recitation "70% or more" in claim 1 and "25% or more" in claim 4 is indefinite because it is not clear what the 70% and/or 25% are being compared to.

The recitation "used for" in claims 13-23, requiring action on the part of the practitioner, is inappropriate in product claims. As discussed above, claims 13-23 use process language in product claims, thereby improperly mixing statutory categories of invention. It is therefore not clear what claims 13-23 encompass, other than the product recited in claim 1.

The language of claim 24 is so confusing grammatically that it is unclear what, precisely, is being claimed. Also, the use of the term "using" in claim 24 renders that claim and its dependents indefinite. Because claim 24 does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

The terms "highly unsaturated fatty acid" and "high content" in claims 31 and 32 are relative terms which render the claim indefinite. The term "high" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Art Unit: 1651

Claim 35 is indefinite because it is not clear what the claim is intended to mean or encompass. Similarly, because of the grammatical structure of claims 38 and 39 it is not clear what is encompassed by those claims. Claim 40 is also confusing in this regard, as it is not clear what the recitation "in a case" is intended to mean.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1, 4-7 and 13-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Aoyama et al (EP 0 557 627 A1), and under 35 U.S.C. 102(e) (2) as being anticipated by Chiu et al (U.S. Pat. 5,811,148).

Aoyama discloses the preparation of reduced viscosity guar-containing products, wherein mannanase from *Aspergillus niger* is contacted with the guar. Disclosed hydrolysate products include products wherein 81 to 96% of the molecular species are 30 to 200 units in length (molecular weight 5.4×10^3 to 3.6×10^4), well within the ranges recited in the cited claims. See Table 2 on page 6. Note further the viscosity of the products disclosed in Table 2 on page 6, meeting the claimed viscosity limitation. Note still further that because the "used for" limitation in claims 13-23 does not in any way limit the product recited in claim 1, a holding of anticipation is required over those claims.

Chiu discloses and claims hydrolysates, including enzymatic hydrolysates, of locust bean and guar gum having an average molecular weight of 500 to 50,000, a maximum viscosity of 50 cps in a 30% solution, and an average DP of 3 to 75. See, e.g. claim 1, at column 18, lines 1-11; see also column 1, line 64 through column 2, line 8; see also Examples 3-6, at columns 11-13. A holding of anticipation over the cited claims is therefore required.

Art Unit: 1651

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 and 24-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoyama et al (EP 0 557 627 A1) and Chiu et al (U.S. Pat. 5,811,148) in view of Hoshida et al (JP 8-173055).

As discussed above, each of Aoyama and Chiu disclose the preparation of enzyme-hydrolyzed polygalactomannan products having the claimed molecular weight distribution, as recited in claim 1. Neither Aoyama nor Chiu discloses administering those

Art Unit: 1651

products to chickens to improve poultry productivity as recited in claims 24-40.

However, Hoshida discloses that administering enzyme-hydrolyzed guar gum to chickens improves poultry productivity, including reducing fatty liver, reducing non-standardized egg-ratio and preventing Salmonella pollution. Recognizing the desirability of administering enzyme-hydrolyzed polygalactomannans such as guar and locust bean gum to chickens, the artisan of ordinary skill would have been motivated by Hoshida to have administered the guar and locust bean gum preparations of Aoyama and Chiu to chickens. Because the enzyme-hydrolyzed polysaccharides of Aoyama and Chiu have very similar, if not identical, structures to the beneficial products of Hoshida, the artisan of ordinary skill clearly would have reasonably expected the products of Aoyama/Chiu to have functioned at least equivalently to Hoshida's polysaccharides in increasing poultry productivity. A holding of obviousness is clearly required.

Claims 1, 2, 4, 8-12 and 24-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoyama et al (EP 0 557 627 A1) and Chiu et al (U.S. Pat. 5,811,148) in view of Hoshida et al

Art Unit: 1651

(JP 8-173055), and in further view of Yamane et al (JP 8-266230) and Kobayashi et al (JP 9-322-716).

As discussed above, Hoshida provides motivation for administering the enzyme-hydrolyzed polysaccharides of Aoyama and Chiu to chickens so as to improve poultry health and productivity. None of Aoyama, Chiu, and Hoshida discloses combining enzyme-hydrolyzed polysaccharides with tea extracts which contain various compounds, including (-)-epigallocatechin gallate, and administering the combination to chickens, as recited in claims 2 and 8-12. However, each of Yamane and Kobayashi discloses beneficial results in poultry health and productivity when tea extracts, which include (-)-epigallocatechin gallate, are administered to chickens. Thus, the artisan of ordinary skill would have been motivated to have included the beneficial tea extracts of Yamane/Kobayashi in chicken feed in addition to the enzyme-hydrolyzed polygalactomannans disclosed by Hoshida as also being beneficial for poultry productivity. A holding of obviousness is therefore required.

Claims 1-4, 8-12 and 24-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoyama et al (EP 0 557 627 A1) and Chiu et al (U.S. Pat. 5,811,148) in view of Hoshida et al

(JP 8-173055), Yamane et al (JP 8-266230) and Kobayashi et al (JP 9-322-716), as discussed above, and in further view of Tokuhiko et al (JP 5-192091).

As discussed above, Aoyama, Chiu, Hoshida, Yamane and Kobayashi, when taken together, provide motivation for combining enzyme-hydrolyzed polygalactomannans and tea extract with chicken feed to improve poultry productivity. None of Aoyama, Chiu, Hoshida, Yamane and Kobayashi, disclosed the use of defatted rice bran as a useful component in chicken feed as recited in claim 3. However, because Tokuhiko clearly discloses the use of defatted rice bran as a useful component of chicken feed, the artisan of ordinary skill at the time of applicant's invention clearly would have been motivated to have used the claimed defatted rice bran in chicken feed. A holding of obviousness is therefore required.

In sum, the claims recite a combination of ingredients which are all disclosed in the prior art as being beneficial when included in chicken feed. Note specifically that it is well known that it is *prima facie* obvious to combine two or more ingredients each of which is taught by the prior art to be useful for the same purpose in order to form a third composition which is useful for the same purpose. The idea for combining them flows logically from their having been used individually in

Art Unit: 1651

the prior art. *In re Pinten*, 459 F.2d 1053, 173 USPQ 801 (CCPA 1972); *In re Susi*, 58 CCPA 1074, 1079-80; 440 F.2d 442, 445; 169 USPQ 423, 426 (1971); *In re Crockett*, 47 CCPA 1018, 1020-21; 279 F.2d 274, 276-277; 126 USPQ 186, 188 (1960).

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Francisco C Prats whose telephone number is 703-308-3665. The examiner can normally be reached on Monday through Friday, with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G Wityshyn can be reached on 703-308-4743. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9307 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.



Francisco C Prats
Primary Examiner
Art Unit 1651

FCP
October 8, 2002